



Montana Fish, Wildlife & Parks

Crucial Areas Assessment



NATIVE GAME SPECIES

Bighorn Sheep and Mountain Goat Habitat

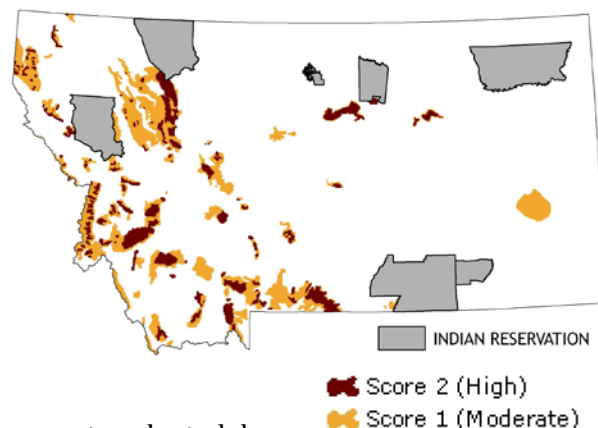
SUMMARY: This layer depicts the relative value of areas based upon the specific habitat requirements of bighorn sheep and mountain goat.

MEASUREMENT UNIT: Public land survey sections - approximately one square mile.

MAPPING CONSIDERATIONS: Indian reservations were not evaluated due to a lack of data. national park lands are not currently represented in big game distribution layers and therefore have lower than expected values in some areas.

DATA SOURCE(S) / QUALITY:

DATA SOURCES	
<input type="radio"/>	Survey data – counts or estimates
<input type="radio"/>	Survey data – categorical (e.g. presence/absence)
<input checked="" type="radio"/>	Expert opinion based on observation
DATA EXTRAPOLATION TECHNIQUE USED	
<input type="radio"/>	None
<input type="radio"/>	Modeling of habitat-species associations (deductive)
<input type="radio"/>	Statistical modeling (inductive)
<input type="radio"/>	Extrapolation to habitat unit (e.g. stream section)
<input checked="" type="radio"/>	Extrapolation based on expert opinion



Bighorn sheep and mountain goat: *metric evaluated:* general and winter distribution. *Data layer:* big game distribution - publicly available for individual species, maintained by FWP. Layers are updated using expert knowledge, which includes known habitat associations and extrapolation from survey data. Resolution is based upon 1 square mile public land survey sections.

METHODS: Bighorn sheep and mountain goat received 1 point for overall distribution and 2 points for winter use. In areas of species overlap, values were not cumulative, the highest value was chosen. The final summed value was rescaled to 0 to 1 before being combined with the other species categories.

FINAL CATEGORIZATION: The resulting scores ranged from 0 to 1. The mean (0.37) and the standard deviation (0.23 SD) of the final scores were calculated. Final categories were determined by assessing the deviation from the mean value. The highest category had values > 1.5 SD from the mean. The high category was 0.5 to 1.5 SD from the mean value. The moderate category ranged from -0.5 SD below the mean to 0.5 SD above the mean. The low category was < -0.5 SD from the mean. Actual values and percentage of land area are shown in the table.

CATEGORY	PERCENT OF STATE
SCORE 2 (High)	3.1 %
SCORE 1 (Moderate)	6.8 %

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